

Chapter XIX

Asbestos

A. GENERAL.

1. **Uses.** Asbestos has more than 3,000 different uses with about two-thirds being used in the construction industry in building products, insulation, friction materials and textiles. Manufactured products have included reinforced asbestos cement sheets and pipes, patching and taping compounds, floor and ceiling tiles, as well as paints, coatings and sealants containing asbestos as reinforcing fillers, pipe linings and fillers for various liquids. Friction products include clutch facings and brake linings for automobiles, railroad cars, airplanes and industrial machinery. A variety of other uses include theater curtains, fireproof blankets, filtration materials and drywall patching compounds. Industry has created new product lines utilizing asbestos substitutes for many of these items.

2. **Risk.** Asbestos presents significant risk to human health as a result of air emissions. It is toxic by inhalation of dust particles and an active carcinogen. For additional health and safety information, see paragraph C below.

B. DEFINITIONS (40 CFR 61.141).

1. Asbestos is the common name for a group of natural minerals that occur as masses of compact or relatively long silky fibers. Six fibrous minerals, members of a family called silicates, are recognized as asbestos: Chrysolite (white asbestos), actionolite, amosite (brown asbestos), anthophyllite, crocidolite (blue asbestos) and tremolite. Commercially, chrysotile is the most important form of asbestos.

2. **Asbestos-Containing Waste Materials.** Means any waste that contains commercial asbestos and is generated by a source subject to the provisions of this subpart (such as demolition/renovation and waste disposal). It includes

filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovations operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposal equipment's and clothing.

3. **Category I Nonfriable Asbestos-Containing Material (ACM).** Means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products.

4. **Category II Nonfriable ACM.** Means any material, excluding Category I nonfriable ACM, that when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure.

5. **Friable Asbestos Material.** Means any material containing asbestos that, when dry can be crumbled, pulverized, or reduced to powder by hand pressure. Material can be in the form of loose fibers; e.g., pipe insulation, or as a damaged component to an item; e.g., fire-fighting suit.

6. **Nonfriable Asbestos-Containing Material.** Means any material containing asbestos that, when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure.

7. **Regulated Asbestos-Containing Material (RACM).** Means

- a. Friable asbestos material,
- b. Category I nonfriable ACM that has become friable,
- c. Category I nonfriable ACM that will be or has been subject to sanding, grinding, cutting, or abrading, or
- d. Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by

the forces expected to act on the material in the course of demolition or renovation operations.

8. **Waste Generator.** Means any owner or operator of a source covered by this subpart whose act or process produces asbestos-containing waste material.

9. **Waste Shipment Record.** Means the shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.

C. SAFETY AND HEALTH.

1. **Health Hazards.** All forms of asbestos have a tendency to break into a dust of tiny fibers that can float in the air and be inhaled or swallowed. Health hazards identified to date are associated with the inhalation of friable, easily crumbled by hand pressure, asbestos. These airborne friable particles constitute a known carcinogen that also causes various other lung diseases such as the debilitating lung cancer called “Mesothelioma” and other forms of cancer of the digestive and respiratory tract. Heavy exposure to dust containing asbestos can cause skin irritation. Self-contained, undisturbed asbestos products are not considered hazardous, if so maintained. It is believed the most harmful friable fibers are so fine that an electron microscope is needed to see them. Because of their durability, they remain in the body for many years after entry. Asbestos associated maladies may not be manifested for up to 30 years.

2. The personal protection required in the handling, receipt, storage and inspection of asbestos and asbestos-containing products is dependent on the degree of friability of the product and the concentrations of the fibers that become airborne.

3. It is the responsibility of the DRMO Chief to ensure that all DRMO personnel involved in the physical processing of asbestos and asbestos-containing products are provided with personal protective clothing (PPC) and equipment and medical monitoring as defined in the 29 CFR 1910.1001.

4. Specific guidance concerning the selection and use of the proper personal equipment shall be obtained from the host safety and health office or the region safety and health manager.

D. RECEIVING PROCESS/TURN-IN REQUIREMENTS.

DRMOs will follow guidance in DoD 4160.21-M, Chapter 10, Special Turn-In Requirements. Asbestos containing items will be turned-in and managed as HM. If the generating activity can not determine if the item is friable or nonfriable asbestos, then the DRMO will worse case the item and manage it as friable.

1. Non-Friable.

a. DRMOs will accept accountability and physical custody of nonfriable asbestos and non-friable asbestos-containing items.

b. The generating activity will indicate on the DD Form 1348-1/1A, Disposal Turn-In Document, Block 27 as an “Asbestos Containing Material (ACM)” (non-friable).

2. Friable.

a. DRMOs will accept accountability and physical custody of loose and/or exposed friable asbestos under the following conditions. The terms “loose” and “exposed” refer to the condition of the friable asbestos prior to packaging.

(1) The generating activity will indicate on the DD Form 1348-1/1A, Disposal Turn-In Document, Block 27 as “FRIABLE ASBESTOS”.

(2) The generating activity has properly packaged the friable asbestos in leak tight packaging. Off-site transportation of friable asbestos must be in accordance with Department of Transportation (DOT) regulations (49 CFR 172-173)/ADR requirements.

NOTE: Overseas – OEBGD, Chapter 15, requires generating activities to wet all ACM wastes before sealing in leak proof containers.

3. Storage.

a. Asbestos containing items should be stored covered and, to the extent possible, separated from other materials. Storage areas for asbestos containing wastes should be posted with the DRMS Form 944 or equivalent sign with the wording: **“DANGER. ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY”**. Handling for storage, issue, or sales should be confined to the minimum necessary utilizing extreme caution and maximum safety. Storage should also allow for periodic inspection without additional item movement. Evidence of friability should be reported to the property disposal officer immediately.

NOTE: Overseas – OEBGD requires the following language on the sign: **“DANGER-CONTAINS ASBESTOS FIBERS-AVOID CREATING DUST-CANCER AND LUNG DISEASE HAZARD”**.

b. In the event the DRMO does not have sufficient storage space to accept physical custody, asbestos items will be received in place.

E. PROCESSING - General.

1. Nonfriable asbestos-containing material (e.g., roofing felt, brake lining) will be offered for RTDS consistent with DoD 4160.21-M. If RTDS fails, disposal will be either by burial in an EPA approved host landfill (if this option is available) or by ultimate disposal via service contract.

- **Downgrade to scrap actions is not permitted.** Normal scrapping operations such as separation and movement may cause the items to become friable.

- Upon evidence of rips, tears, or damage, the item will be immediately managed as a friable asbestos containing material.

- In RTDS actions, the recipient will be provided, as a minimum, the following warning on any appropriate documentation:

“This product is composed of/contains asbestos. Asbestos in a friable (exposed/easily crumbled) state can be inhaled and may cause cancer. Extreme caution must be exercised to ensure the as-

bestos remains nonfriable. Warning should be perpetuated to the user level and, if transferred, to the new owner. Applicable OSHA standards for personal protection are 29 CFR 1910.1001 and the EPA disposal standards are 40 CFR 61.154.

2. Friable asbestos material will not be offered for RTDS. Disposal will be accomplished either in a host landfill that complies with 40 CFR 61.154 or through service contract.

F. ASBESTOS DISPOSAL

1. The requirements outlined in this paragraph apply to asbestos-containing waste except for Category I and Category II nonfriable asbestos waste that has not been crumbled, pulverized, or reduced to powder.

2. **Packaging.** Asbestos-containing waste for disposal must be sealed in leak tight containers or wrappings.

NOTE: Overseas – OEBGD requires generating activities to wet all ACM wastes before sealing in leak proof containers.

3. Labeling.

a. Containers or wrapped materials must be labeled as specified by 29 CFR 1910.1001(j)(2) or 1926.58(k)(2)(iii). That is, the labels must include the following information:

“DANGER. CONTAINS ASBESTOS FIBERS. AVOID CREATING DUST. CANCER AND LUNG DISEASE HAZARD”

NOTE: Overseas – OEBGD requires the following language on the sign: **“DANGER-CONTAINS ASBESTOS FIBERS-AVOID CREATING DUST-CANCER AND LUNG DISEASE HAZARD”**.

b. The labels must comply with 29 CFR 1910.1200(f) or OEBGD/FGS. Labels must be printed in letters of sufficient size and contrast so as to be readily visible and legible. The labels must be printed in English and the host nation language. DRMOs who have employees who speak another language must also include the information in another language.

c. The label (or marking) must also include the name and location of the waste generator.

4. **Vehicle Marking.**

a. Display markings so that they are easily readable.

b. The marking must conform to the requirements for 51 cm x 36 cm (20 in. x 14 in) upright format signs specified in 29 CFR 145(d)(4).

c. Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified:

“DANGER. ASBESTOS. CANCER AND LUNG DISEASE HAZARD. AUTHORIZED PERSONNEL ONLY. RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED”

Notation 2.5 cm (1 in) Sans Serif, Gothic or Block 2.5 cm (1 in) Sans Serif, Gothic or Block 1.9 cm (3/4 in) Sans Serif, Gothic or Block 14 Point Gothic

5. **Waste Shipment Record (WSR).**

a. A waste shipment record must be used for shipments of asbestos wastes (40 CFR 61.150). The waste shipment record for asbestos wastes is similar to the manifest requirement for hazardous waste. Some states may require the use of a specific form. DRMOs should check with their state to determine if a specific form is required. If not, DRMS Form 1974 or a contractor form can be used provided that the form includes the same information as the DRMS Form.

b. The WSR is used as a means for cradle-to-grave accountability and must be provided to the disposal facility upon delivery of waste. The owner/operator of the designated disposal facility is required to return a copy of the WSR to the generator. DRMOs that do not received a signed copy within 35 days, should contact the transporter and/or disposal facility to determine the status. If a signed copy of the WSR is not received within 45 days of shipment, an exception report should be sent to the local, state or EPA regional office responsible for administering the

NESHAP program. Include the following information in the exception report:

(1) Copy of the WSR.

(2) Cover letter signed by the waste generator explaining the efforts taken to locate asbestos waste shipment and the results of those efforts.

6. **Recordkeeping.** Retain a copy of the Waste Record Shipment form for 2 years and make available to EPA upon inspection.

NOTE: Overseas – OEBGD requires a permanent record be kept.